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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,171	02/22/2000	Paramvir Bahl	MS1-493US	3218

22801 7590 09/26/2003

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EXAMINER

HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/511,171

Applicant(s)

BAHL ET AL.

Examiner

Matthew Heneghan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-49 have been examined.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- figure 3B, item "306a".
- figure 8, items "806" and "814"

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The use of the trademarks AT&T®, MCI®, Sprint®, Microsoft®, and Boeing® have been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6, 8-17, 19-29, and 33-49 are rejected under 35 U.S.C. 102(b) as being anticipated by WIPO Patent Application No. 99/01969 from Xu et al.

As per claims 1, 2, 11, and 13, the network access method disclosed by *Xu* includes a host network allowing wireless public internet access (see page 6, lines 9-12 and 22), an authentication component allowing connection to any ISP (see page 7, lines 22-24), modules for end users to communicatively access the network (see page 6, lines 4-8), and local and globally accessible authentication databases (see page 7, line 26 to page 8, line 4).

As per claims 3 and 4, the system links a user to the correct authentication database, and the user authenticates directly with it, in an end-to-end manner (see page 13, lines 17-31).

As per claims 5 and 6, the RADIUS authentication used a shared secret between the user and the authentication server, so that the authentication component is now aware of that information (see page 24, lines 10-14).

As per claim 8, the RADIUS authentication server notifies the authentication component of a successful authentication (see page 25, lines 9-11).

As per claims 9 and 10, the RADIUS authentication server is configured to provide accounting information about the user session to the authentication component, including the Account Session Time, which is sufficient to compute billing. (see page 27, line 24 to page 29, line 24).

As per claims 12 and 34-42, the authentication component receives a unique IP address for each user from the authentication server at the end of the authentication sequence, which it must then transmit to the user. A user's IP address is enclosed within all internet TCP/IP transmissions (see page 27, lines 7-9).

As per claims 14-17, 19-21, 23, 24, 26-29, 33, and 43-49, there exists a plurality of wireless access points which users use to interface the network (see page 2, lines 16-20).

As per claim 22, *Xu* discloses that the authentication that grants access to the internet may be given by an entity other than an ISP (see page 8, lines 23-25).

As per claim 25, *Xu* discloses the a user may connect via the World Wide Web (see page 13, lines 17-19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application No. 99/01969 from Xu et al. as applied to claims 6 and 17, respectively, above, and further in view of U.S. Patent No. 5,742,763 to Jones.

The invention disclosed by *Xu* discloses that authentication takes place, but does not specifically disclose the usage of the SSL protocol for the authentication.

Jones discloses a network environment in which authentication and encryption protocols are used, as appropriate, and specifies that SSL is an appropriate protocol for such an environment (see column 3, lines 57-60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to, when performing the authentication disclosed by *Xu*, use SSL when encrypting authentication data, as disclosed by *Jones*, as that is an appropriate network encryption protocol.

6. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application No. 99/01969 from Xu et al. as applied to claim 29 above, and further in view of WIPO Application No. 98/32254 from Scholnick et al.

The system disclosed by *Xu* does not include a unique encrypted token being sent to the user after authentication.

Scholnick discloses the use of encrypted identifying tokens in network transactions, and notes that this provides anonymity to transactions by shielding the two ends of the connection.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add the use of encrypted identifying tokens, as disclosed by *Scholnick*, to the invention disclosed by *Xu*, in order to enhance the anonymity of a connection.

7. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over WIPO Patent Application No. 99/01969 from *Xu et al.* as applied to claim 23 above, and further in view of U.S. Patent No. 5,742,598 to *Dunn et al.*

In the network disclosed by *Xu*, it is not explicitly stated that the access points define a wireless subnet, or that they are deployed in a publicly accessible area.

Dunn discloses a model of a network in which it is noted that a subnetwork is a cellular (wireless) network, which is, by its nature, publicly accessible, and that this model would provide a plurality of communications services (see column 3, lines 11-27).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to deploy the set of user nodes disclosed in *Xu* as a subnet in a wireless cellular network, as described in *Dunn*, in order to provide a plurality of communications services.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,455,863 to Brown et al. discloses a cellular network with efficient real-time encryption and authentication.

U.S. Patent No. 6,22,3291 to Puhl et al. discloses a secure wireless transaction system using the Public Switched Telephone Network (PSTN).

U.S. Patent No. 6,314,519 to Davis et al. discloses a secure messaging system for use over a cellular network.

U.S. Patent No. 6,338,140 to Owens et al. discloses a method for validating subscriber identities over a GSM network.

U.S. Patent Application No. 2003/0033522 from Bilgic et al. discloses methods for authentication and security in a wireless network.

WIPO Patent Application No. 98/32301 From Nordman discloses an architecture for a wireless IP network.

Lin et al., "Authentication Protocols in Wireless Communications" discusses several authentication protocols being used in public wireless networks.

WAP Forum, "Wireless Application Environment Overview", discloses a broad description of several associated protocols for wireless network management. More specific protocol information is available at <http://www.wapforum.org>.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan whose telephone number is (703) 305-7727. The examiner can normally be reached on Monday-Thursday from 9:00 AM - 5:00 PM Eastern Time. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

(703) 746-7239 (for formal communications intended for entry)

Or:

(703) 746-7240 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MEH



September 9, 2003



GREGORY MORSE
SUPERVISORY PATENT EXAMINER
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